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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
 Washington, D.C. 20554

NOV - 8 1993

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of	)	GEN Docket No. 90-314
	)	ET Docket No. 92-100
Amendment of the Commission's	)	
Rules to Establish New Personal	)	
Communications Services	)	

**OPPOSITION OF COX ENTERPRISES, INC. TO  
APPLE COMPUTER, INC.'S EMERGENCY PETITION**

Cox Enterprises, Inc. ("Cox"), by its attorneys, hereby submits its Opposition to Apple Computer Inc.'s ("Apple") Emergency Petition ("Petition") filed on September 13, 1993 in the above referenced proceeding. Apple filed its Petition in response to the regulatory framework established by the Commission for use of the 2 Ghz band by emerging technologies.<sup>1/</sup> On the same date, Apple filed a Petition for Reconsideration of the Commission's Order, raising similar issues in the same docket.

Apple claims that certain aspects of the Order "so limit the future of Data-PCS that the Commission must take certain essential action in this proceeding if Data-PCS is not to be still-born."<sup>2/</sup> In addition to a request to modify the Commission's unlicensed PCS allocation of spectrum within the 2 GHz band, Apple argues that additional spectrum be allocated for unlicensed systems.

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1/ See Third Report and Order and Memorandum Opinion and Order, 8 FCC Rcd 6589 (adopted July 15, 1993). [hereinafter "Order"].

2/ See Petition at 1.

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Further, Apple proposes a number of restrictions on the use of unlicensed PCS spectrum in respect to when the frequencies can be used and who can use them.

**THE COMMISSION SHOULD ADDRESS APPLE'S CONCERNS DURING THE RECONSIDERATION PERIODS ESTABLISHED IN THE RELEVANT DOCKETS.**

In an attempt to pressure the Commission into implementing its proposals, Apple has inappropriately filed an "emergency" Petition. Other than broad rhetorical statements that Apple will be adversely affected by the Commission's decisions, Apple has provided no evidence to demonstrate the alleged "emergency" conditions that have prompted its filing. The Commission should not be diverted by Apple's theatrical tactics.

The issues raised by Apple in its Petition can, and will, be addressed by the timely submission of petitions for reconsideration in the Emerging Technologies and PCS dockets.<sup>3/</sup> There is no valid reason why Apple's concerns regarding the spectrum allocations for licensed and unlicensed PCS and the transition plan cannot be addressed according to the procedures and timetable established and observed by other interested parties in the relevant proceedings. Apple should cease reiterating the same recycled arguments in an unauthorized and essentially duplicative petition. Submitted contemporaneously with this Opposition is Cox's Opposition to Petitions for Reconsideration submitted in ET

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<sup>3/</sup> Apple has already filed its petition for reconsideration of the Emerging Technologies Order and is free to file for reconsideration in GEN Docket No. 90-314.

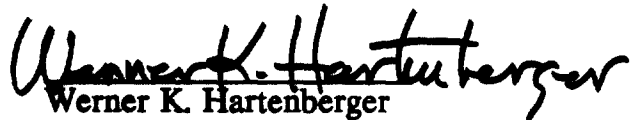
Docket 92-9. In its filing, Cox specifically addresses Apple's impractical and ill-advised retuning proposal.

**CONCLUSION**

Apple's "emergency" Petition must be denied and the concerns raised should appropriately be addressed within the Commission's well-established reconsideration process. Apple must not be permitted to divert the Commission's attention and waste the Commission's and interested parties' resources by initiating unnecessary and duplicative "emergency" proceedings.

Respectfully submitted,

**COX ENTERPRISES, INC.**



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November 8, 1993

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	ET Docket No. 92-9
	)	
Redevelopment of Spectrum to	)	RM-8004
Encourage Innovation in the Use of New	)	RM-7981
Telecommunications	)	
Technologies	)	
	)	

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## **SUMMARY**

Cox urges that the Commission reject the petitions of clarification/reconsideration that request an expansion of the Public Safety Exemption. The Commission has adopted extremely generous transition rules that fully compensate all microwave incumbents and that safeguard the continued integrity of their relocated operations. Broadening the exemption will only exacerbate the already difficult problem of clearing the 2 GHz spectrum band, increase the transaction costs associated with spectrum relocations and clutter other portions of spectrum already plagued by significant blockage problems.

In addition, the Commission should reject Apple's impractical retuning proposal. The Commission has established a workable compromise for the protection of microwave incumbents subject to involuntary relocation. No other accommodations are necessary or desirable.

Finally, the Commission should reject the suggestion that the two year negotiation period applicable to microwave incumbents in the licensed frequency band be initiated some time after auction applications are accepted. Once emerging technology applications are filed, incumbents that must relocate will be apprised of their obligation and should be encouraged to do so. Any further extension of time will delay the introduction of emerging technologies.

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**OPPOSITION OF COX ENTERPRISES, INC.**

Cox Enterprises, Inc. ("Cox"), by its attorneys, hereby submits its response to the Petitions for Clarification and Reconsideration filed in response to the Federal Communications Commission's (the "Commission") Third Report and Order and Memorandum Opinion and Order ("Order"), adopted July 15, 1993 in the above referenced proceeding.<sup>1/</sup> The Order establishes the relocation framework for incumbent service providers operating within the spectrum bands allocated for use by emerging technologies.

**I. INTRODUCTION**

Over the last several years, Cox has been engaged in PCS experimentation utilizing both fiber optic and hybrid coaxial cable/fiber optic television plant to ensure the widespread, reliable and cost effective delivery of PCS.<sup>2/</sup> Cox was the first company with cable TV interests authorized by the Commission to propose and

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1/ Emerging Technologies, 8 FCC Rcd 6589 (1993).

2/ Cox presently holds experimental licenses to test PCS.

demonstrate PCS delivery using cable as the backbone for the network. Cox's experiments continue to demonstrate strong synergies between PCS and broadband cable.

Cox has taken an active role in the above referenced proceedings, recognizing that the framework and structure established for PCS delivery will ultimately depend in large measure on the efficacy of the steps taken by the Commission to allocate and clear spectrum allocated for emerging technologies. In light of Cox's desire to facilitate the efficient and swift implementation of PCS technologies, it submits this Opposition.

**II. THE COMMISSION'S DECISION TO PROVIDE FOR A LIMITED PUBLIC SAFETY EXEMPTION STRIKES AN APPROPRIATE BALANCE BETWEEN THE NEEDS OF NEW AND INCUMBENT SERVICE PROVIDERS AND IS SUPPORTED BY PUBLIC POLICY.**

Under the newly adopted rules, existing 2 GHz public safety facilities are exempt from mandatory relocation, provided that "the majority of communications carried on these facilities are directly used for police, fire, or emergency medical services operations involving safety of life and property."<sup>3/</sup> In determining which operators are permitted to reside indefinitely grandfathered in the emerging

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<sup>3/</sup> See Order at 2. The facilities within this exemption are those Part 94 facilities currently licensed on a primary basis under Section 90.21 Fire Radio Service; Section 90.27 Emergency Medical Radio Service; and Subpart C of Part 90, Special Emergency Radio Services. Additionally, licensees of other Part 94 facilities licensed on a primary basis under the eligibility requirements of Part 90 Subparts B and C may request similar treatment upon demonstration that the majority of communications carried on those facilities are used for operations involving safety of life and property. *Id.*



technologies band, the Commission distinguished among incumbents based upon the volume of their communications that are dedicated to the protection of life and property.

A number of public safety microwave incumbents or their trade associations have filed petitions for reconsideration of this aspect of Commission's decision.<sup>4/</sup> Each argues that the provision of their services is no less vital to the protection of life and property than those public safety licensees that fall within the Commission's exemption. These petitioners, however, ignore the Commission's efforts to establish a fair and balanced transition framework, responsive to all interested parties with diverse and equally legitimate concerns.

**A.    The interests of all incumbent licensees, including non-public safety state and local government licensees, are amply protected under the transition plan.**

According to the Commission's Rules, all existing fixed microwave operations retain co-primary status with new services and devices unless and until an emerging technology licensee requires an existing 2 GHz frequency.<sup>5/</sup> At that point, the incumbent is encouraged to voluntarily negotiate relocation terms. If agreement cannot be reached, the existing facility can be involuntarily moved after a mandatory

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<sup>4/</sup> Petitioners include The Public Safety Microwave Committee ("PSMC"), The Forestry-Conservation Communications Association, The Association of Public-Safety Communications Officials-International, Inc., The American Association of State Highway and Transportation Officials and The Public Safety Communications Council ("PSCC").

<sup>5/</sup> See Order at 3.

negotiation period expires and then only if a number of well-crafted, protective conditions are fulfilled.<sup>6/</sup>

These extensive requirements not only protect incumbents from the costs, unreasonable surprise, technical hurdles, coordination responsibilities and quality concerns associated with the relocation, but provide incumbents with substantial affirmative benefits. The rules assure that, at worst, microwave licensees will benefit from the transition framework by acquiring substantially more advanced equipment cost-free.<sup>7/</sup>

As previously stressed by Cox in earlier phases of this proceeding, all incumbent microwave licensees will retain co-primary status indefinitely, and no microwave licensee will be required to relocate unless and until the emerging

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6/ For example, the emerging technology service provider must:

- (1) Guarantee payment of all costs of relocating to a comparable facility -- including engineering, equipment and site costs, Commission fees, and any reasonable additional costs;
- (2) Complete all activities necessary for placing the new facilities into operation, including engineering and frequency coordination; and
- (3) Build and test the new microwave (or alternative) system.

In addition, if within one year after the new facilities are in operation, it is demonstrated that the facilities are not comparable to the former facilities, the emerging technology services provider must remedy any differences or pay to relocate the microwave license back to the former 2 GHz frequencies. See First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd 6886, 6890 (adopted September 17, 1992).

7/ The Commission, itself, has recognized that aging equipment using older technology may be replaced with new equipment using state-of-the-art technology. See Order at 7.

technologies service provider guarantees payment of all relocation expenses, builds new microwave facilities at the relocation frequencies and demonstrates that the new facilities are comparable to the old.<sup>8/</sup> The Commission has crafted a transition plan that will have no immediate, adverse or enduring impact on relocated microwave licensees.

In light of the fact that the incumbents are fully protected from inconvenience by the relocation, practically or financially, there exists no reasonable basis for continuing unsupported complaints regarding service interruption or dislocation.<sup>9/</sup> The Commission has adopted a generous plan to protect the legitimate interests of microwave incumbents. The Petitioners should not be permitted to undermine the transition framework by arguing inconvenience and disruption based on short-sighted and unfounded fears.<sup>10/</sup>

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<sup>8/</sup> See Opposition of Cox Enterprises, Inc., ET Docket No. 92-9 (submitted March 30, 1993) at 8.

<sup>9/</sup> The petitions continue to overlook the obvious but important point that emerging technologies licensees will not request relocations lightly, without first exhausting all other practical approaches to potential interference. The relocation process will be tremendously burdensome and expensive to new service providers, coming at the same time that these entities will be heavily investing in basic network construction.

<sup>10/</sup> As the Commission is aware, Cox has been equally concerned about the incumbent microwave problem within the allocated spectrum blocks. Unlike the petitioners, however, Cox has not chosen to address its concerns at the direct expense of other companies with whom it must share spectrum. It must be recognized that, if all legitimate interests are to be accommodated in this proceeding, compromises are essential.

**B. The limited Public Safety Exemption maintains a careful balance between opposing interests and encourages the efficient, widespread deployment of PCS.**

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The Commission's decision to allocate to emerging technologies spectrum already in use was controversial. However, the Commission has created a suitable framework that appropriately balances incumbent concerns and the desires of future emerging technology providers who wish to swiftly deploy new innovative services to the public.

The Commission's rule expresses the judgment that public safety licensees, as distinguished from the myriad water districts, public power services and state and local government licensees, are deserving of an exemption from the potential of involuntary relocation. The Commission has chosen to exempt only those microwave incumbents who use a majority of their communications for the provision of police, fire and emergency services. This decision recognizes that microwave incumbents providing services that directly and predominantly protect lives and property cannot risk any possibility of service disruption or inconvenience.<sup>11/</sup>

The Commission, however, also realizes that service providers who use only a portion of their spectrum for these types of services can be relocated with minimal inconvenience and no disruption in service. Although the public safety contributions of the petitioners arguing an expansion of the exemption are recognized and appreciated, accommodations must be made to fulfill the Commission's commitment

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<sup>11/</sup> The rules, however, do contemplate voluntary relocation of public safety entities.

to the widespread deployment of emerging technologies. The balance struck by the Commission is equitable, necessary and will benefit ultimately both emerging technology service providers and microwave incumbents.<sup>12/</sup>

Broadening the Public Safety Exemption to include all state and local government licensees would serve only to exacerbate the already difficult service development challenges facing emerging technology licensees. As Cox's January 1993 study assessing the impact of microwave incumbents on PCS development in the 1850-1990 MHz band for the Los Angeles-San Diego Major Trading Area ("MTA") illustrates, PCS licensees presently face extreme congestion in certain allocated bands and markets which, if uncorrected, will seriously delay the implementation of PCS.<sup>13/</sup> Additional studies conducted by American Personal Communications ("APC") and Comsearch have found comparable blockage problems in other markets throughout the United States.<sup>14/</sup> Licensees simply will be unable to deploy PCS if they are prevented from relocating a significant number of microwave incumbents.

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<sup>12/</sup> The Commission has adopted a flexible application of the Public Safety Exemption by allowing parties to demonstrate compliance with the established standard. Cox believes that it is proper that such showings be made in order to achieve the benefits envisioned by the Commission's transition framework.

<sup>13/</sup> See Reply Comments of Cox, GEN Docket No. 90-314 (filed February 12, 1993) at 5-6. According to the study, of the 266 microwave paths licensed in the MTA, 25% appear to be licensed to entities with governmental or quasi-governmental functions, including public safety services.

<sup>14/</sup> See APC Study filed November 20, 1992 in this Docket; Comsearch, Analysis of the 20 MHz, 30 MHz & 40 MHz PCS Block Allocations, GEN Docket No. 90-314 (filed January 8, 1993) at 1.

As Cox has previously observed, these studies demonstrate that a 20 or 30 MHz allocation for each PCS licensee may prove inadequate for the introduction of PCS even with the Commission's adoption of the Public Safety Exemption.<sup>15/</sup> An expansion of the number of microwave incumbents permitted to reside within the 2 GHz frequency band indefinitely will unnecessarily clutter the band and prevent emerging technology service providers from gaining access to spectrum invaluable to the development and provision of new innovative services to the American public.

### **III. THE COMMISSION SHOULD REAFFIRM ITS REJECTION OF APPLE'S RETUNING PROPOSAL.**

In its second attempt to convince the Commission to allow microwave incumbents within the unlicensed spectrum allocation to relocate to other portions of the 2 GHz frequency band, Apple reiterates arguments previously rejected by the Commission.<sup>16/</sup> Apple's approach is impractical and fails to take account of the chain reaction retuning would have on microwave licensees that might otherwise be undisturbed.<sup>17/</sup>

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<sup>15/</sup> See Opposition of Cox Enterprises, Inc., ET Docket 92-9 (submitted March 30, 1993) at 11. Given the spectrum congestion, Cox has previously proposed that at least 40 MHz of spectrum be allocated to each PCS licensee to assist in accommodating grandfathered microwave incumbents.

<sup>16/</sup> Apple presented the same arguments during the comment period preceding the Commission's issuance of the Third Report and Order. See Order at 12-13.

<sup>17/</sup> As previously recognized by Time Warner, the relocation requirements of licensed and unlicensed PCS are highly interdependent. Unless relocations are coordinated, subsequent relocations will become progressively more difficult and expensive. See Comments of Time Warner Telecommunications, GEN Docket 90-314, filed June 21, 1993 at 6-8.

Any Commission authorization for the in-band retuning of microwave incumbents within the unlicensed spectrum will increase the transaction costs associated with clearing the entire band; financially burden emerging technology service providers; and unnecessarily delay the deployment of new services to the public. It would be entirely inefficient to move microwave incumbents to other portions of the 2 GHz frequency band when they must ultimately relocate out of the spectrum altogether.<sup>18/</sup> Even assuming that massive retuning is feasible, these additional moves would burden emerging technology service providers with the financial costs of effecting two moves, as well as congest other spectrum that also will be the subject of relocation negotiations.

Apple asserts that its retuning proposal will not permit unlicensed PCS providers to "dump" facilities into other portions of the 2 GHz band because the entity that performed the retuning would remain responsible for the costs of any subsequent out-of-band move. This contention, however, does not address the basic problem that frequencies that must be ultimately cleared will be further congested.<sup>19/</sup> The intermediate step will simply increase the transaction costs incurred to achieve the necessary goal of clearing the entire allocated spectrum of all microwave incumbents, other than exempt facilities.

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<sup>18/</sup> The Commission has rechannelized spectrum in the 6 GHz range and will make available government spectrum adjacent to the 2 GHz band to accommodate relocated facilities.

<sup>19/</sup> Once the initial move is complete the service provider that retuned the incumbent will have significantly less incentive to negotiate earnestly for the second move once its initial service needs have been satisfied.

Cost-shifting was not the Commission's only concern in rejecting Apple's approach. It was quite reasonably concerned that the proposal would delay the implementation of emerging technologies/PCS by packing the established mandatory negotiation period with an infinite number of potential negotiations for in-band and out-of-band relocations. Cox agrees with the Commission's conclusion that Apple's retuning proposal further complicates an already difficult process and, therefore, should be rejected.

**IV. THE TWO YEAR NEGOTIATION PERIOD APPLIED TO MICROWAVE INCUMBENTS LOCATED WITHIN THE LICENSED EMERGING TECHNOLOGY SPECTRUM SHOULD COMMENCE WHEN PCS APPLICATIONS ARE ACCEPTED ON PUBLIC NOTICE FOR AUCTION PARTICIPATION.**

Both the Utilities Telecommunications Council ("UTC") and The Association of American Railroads ("AAR") request clarification/reconsideration of the time specified for the commencement of the voluntary negotiation period applicable to licensed spectrum incumbents. The negotiation period commences upon Commission "acceptance of applications for emerging technologies."<sup>20/</sup> UTC and AAR, in an attempt to extend the transition time allotted to microwave incumbents, argue that the period should not begin until after licenses have been awarded.<sup>21/</sup> Cox is opposed to these attempts to extend the Notice period established by the

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<sup>20/</sup> See Order at para. 15.

<sup>21/</sup> UTC also suggests that the period begin after formal demand for spectrum is made on the incumbents by emerging technology service providers.



Commission because they will further delay the clearing of the allocated spectrum bands.<sup>22/</sup>

In the Order, the Commission has attempted to balance the competing interests of future PCS providers and present microwave incumbents. It has adopted a schedule designed to clear allocated spectrum efficiently and also permit incumbents to plan a successful, effective move.<sup>23/</sup>

As Cox has previously argued, there is no basis for the argument that additional time is required. Non-grandfathered microwave incumbents are already allotted at least three years to relocate under the Commission's transition plan. In addition, the two negotiation periods permit incumbent licensees to continue using bands in areas where spectrum is not sought for emerging technologies. Since the Commission has provided indefinite protection for incumbent microwave licensees, and has guaranteed microwave licensees that they will not be adversely affected by

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<sup>22/</sup> Cox submits that the Commission must take into account these delays in calculating whether an emerging technology licensee has met geographic or population coverage benchmarks under relevant construction permits.

<sup>23/</sup> In comments submitted to the Commission regarding the appropriate transition plan, the Commission was asked to apply divergent schedules ranging from immediate initiation of the two-year negotiation period to a transition period of 15 years. See Order at 5. In response, the Commission concluded that the voluntary negotiation period should begin with the acceptance of applications for emerging technology services.

Although UTC and AAR suggest that there is little incentive to negotiate with emerging technology providers before the auction is held, they fail to recognize that, once applications are submitted, notice is given that the frequencies are in fact necessary for the provision of emerging technology/PCS services. Adequate time, therefore, is provided for fixed microwave licensees to prepare for relocation.

the implementation of new services, the need for any transition period is diminished significantly.

## V. CONCLUSION

Cox urges the Commission to reject the Petitions for Clarification/Reconsideration that request an expansion of the Public Safety Exemption. Broadening the exemption with only exacerbate the problem of clearing the 2 GHz spectrum band, increase the transition costs incurred by emerging technology service providers to accomplish the necessary relocations, and clutter other portions of the spectrum already plagued by significant blockage problems.

Similarly, the Commission should reject Apple's broadly constructed and impractical retuning proposal. The Commission has adopted generous provisions for the protection of microwave incumbents that are involuntarily relocated -- allowing tax-free equipment upgrades, and guaranteeing a "seamless, disruption-free relocation to other bands."<sup>24/</sup> No further accommodations are necessary or desirable.

Finally, the Commission should reject the suggestion that the two year negotiation period imposed upon microwave incumbents in the licensed frequency band should begin some time after applications for emerging technology licenses are accepted. Once applications for licenses for frequencies in distinct markets are filed, incumbents not falling within the Public Safety Exemption, if necessary, will be

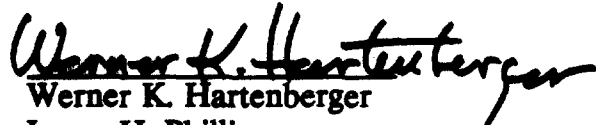
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<sup>24/</sup> See Order at 5.

apprised of their obligation to relocate and should be encouraged to do so. Any further extension of time will needlessly delay the introduction of emerging technologies. The periods of voluntary and mandatory negotiation must be tightly controlled if the goal of widespread deployment of new services, made possible by emerging technologies, is to be achieved. For these reasons, the Commission should reject the petition for reconsideration filed in this proceeding.

Respectfully submitted,

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November 8, 1993

**CERTIFICATE OF SERVICE**

I, Pamela Marie DuBost, hereby certify that today on this 8th day of November, 1993, I caused a copy of the OPPOSITION OF COX ENTERPRISES, INC. TO APPLE COMPUTER, INC.'S EMERGENCY PETITION to be served by first-class mail, postage prepaid to the following:

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